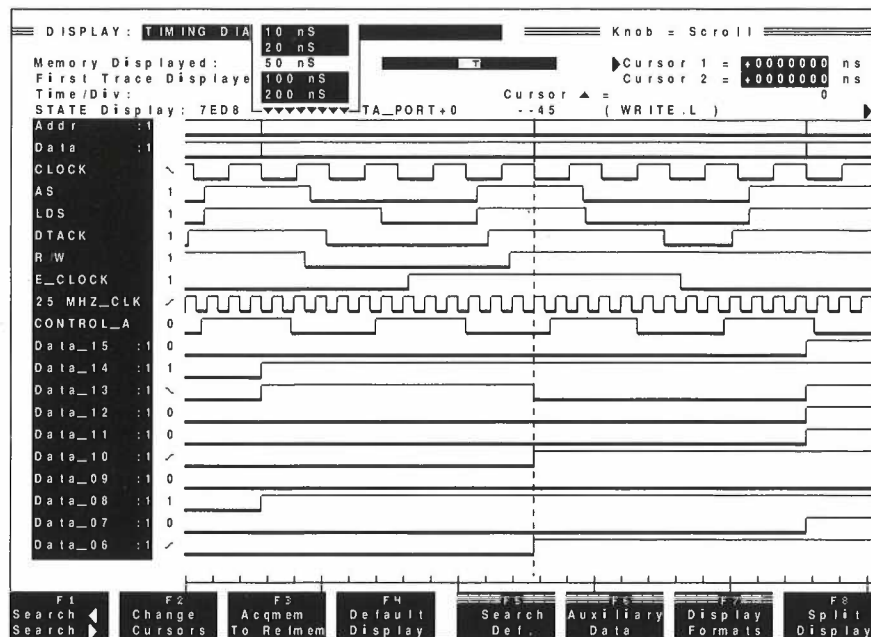# PRISM 3001/3002
System Software Version 2.0

Pop-up fields are a major enhancement to the Prism system software version 2.0. This lets you easily select the option you want for any select field. Shown is the new timing display window which now includes 1-2-5 resolution, binary readout and state readout at the cursor.

- **FREE Upgrade For All Users**
- **Pop-up User Interface**
- **1-2-5 Timing Diagram Resolution**
- **BUSFORMS Display**
- **Binary Readout in Timing**
- **State Readout in Timing**
- **Easy Method for Labeling Timing Channels**
- **Easier to read Timing Diagram Displays**
- **Multi-line State Disassembly Displays**
- **Improved Memory Differences Display**
- **Improved Save/Restore Capability**
- **Kermit RS-232 Protocol**
- **Improved State Table Printing Capability**
- **HLL Symbol Capability**
  - **1500 Symbols/group**
  - **Range plus Offset display**
  - **Compatible with LA-LINK**

MAJOR SYSTEM SOFTWARE UPGRADE FOR ALL PRISM 3000 SYSTEMS

Prism System Software Version 2.0 is a major upgrade that will dramatically increase the productivity of your Prism 3001 or 3002 system. This upgrade is provided free of charge to all existing Prism owners. This upgrade consists of new system software, new application software, and a new User's manual.

Pop-Up User Interface

You can now quickly view all options in any select field from a pop-up menu. Simply move to the desired field, press return and all options will appear in a pop-up menu. Use the scroll knob to select the desired option.

This feature will speed up many Prism functions. It eliminates the need to step through each option, some of which may take time to display. For example, when changing timing resolution, rather than draw the screen for each resolution you pass by, you can jump directly to the resolution you want.

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Improved Timing Diagrams

Several enhancements have been made to the timing diagrams to increase your productivity.

- 1-2-5 timing resolution to display the data in the resolution you want to see it in.
- You can now display a composite trace, called a BUSFORM, consisting of all traces within a given channel group. If selected, the value of the BUS is displayed at the top of the screen in the STATE display line. BUSFORMs are a convenient way to view activity of many lines such as address or data lines.
- Timing traces displays logic lows in a double pixel line to easily differentiate ones from zeros.
- Easy method for adding custom labels to individual timing lines to identify what line is being displayed.
- A binary readout field has been added to indicate the value of the timing diagram at the cursor. Five symbols indicate logic 1, logic 0, transition to high, transition to low, and middle state for the 30HSM's dual threshold mode. This field can be turned off if desired.
- A state readout field has been added to indicate the module state display at the cursor. If disassembly has been selected the disassembled instruction will be displayed. This field can also be turned off.

Improved Memory Compare

When comparing acquisition memory to a reference memory, comparisons are made on a location-to-location basis, relative to the module trigger. An arrow displayed in the left column of the State Display indicates a difference and the exact difference is highlighted. In the timing diagram the cursor is placed at the nearest differing location during a search for differences.
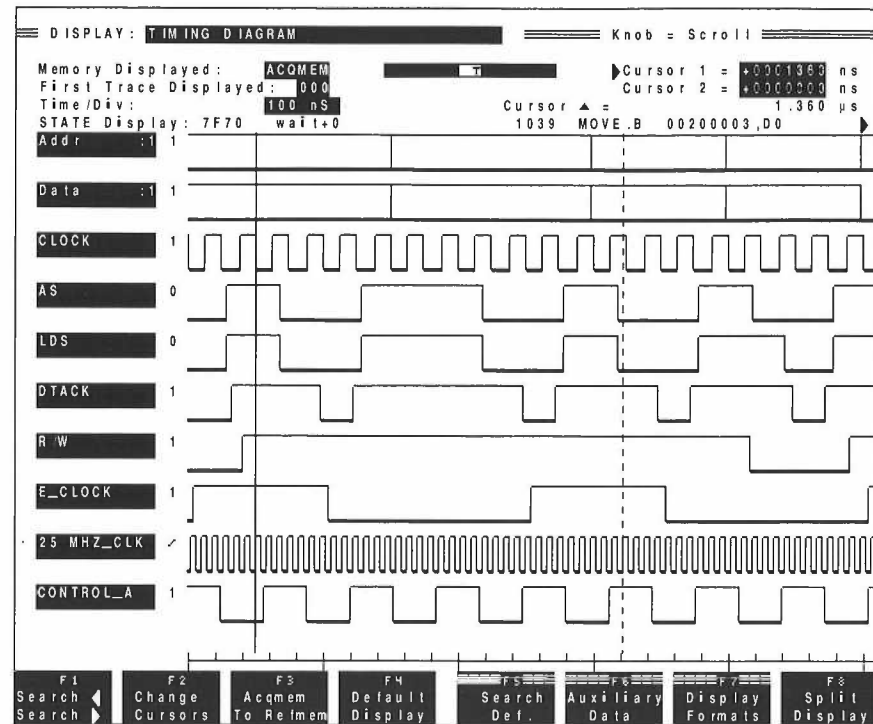
BUSFORMS are now available. This shows the address and data group each displayed as single traces. Other improvements in the timing diagram include displaying logic lows as a double pixel line. Also custom labels can be easily added to each individual timing trace.
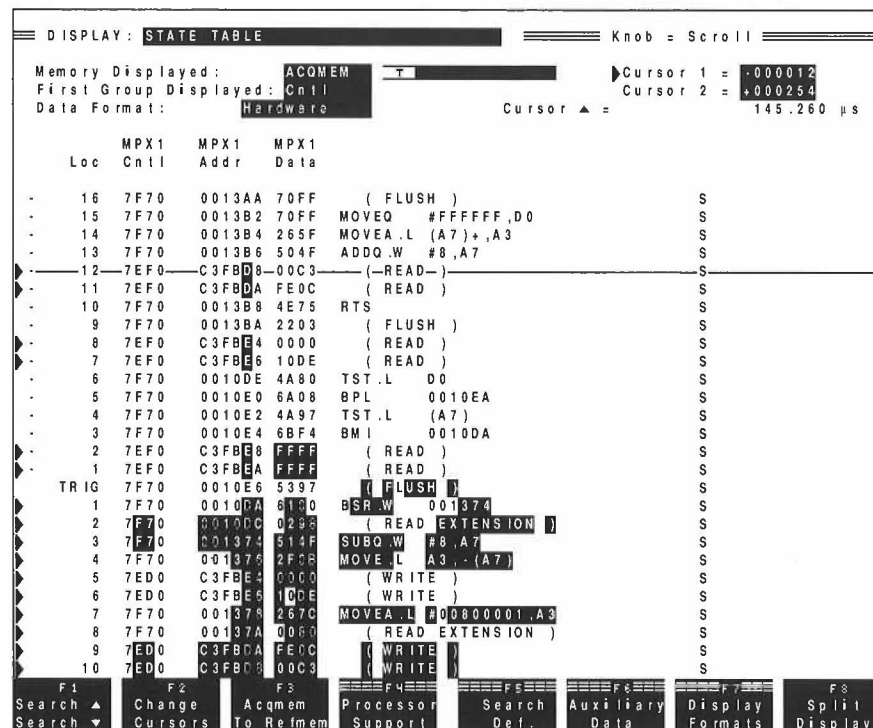
When comparing your current acquisition memory with a stored reference memory, memory differences are easily identified. An arrow points to the line with the difference and the actual difference is highlighted.

Improved State Display

Several enhancements have been made to the state display to increase your productivity.

- For microprocessors that have multiple instructions per data fetch (e.g. 80386 w/8-bit opcode can fetch up to 4 instructions in a single fetch), the Prism now displays each instruction on it's own line rather than horizontally on one line.
- High level language symbol capability has been added to the disassembly display (see more on symbols below). Range symbols are displayed with an offset in the address group.

HLL Symbol Capability Added

Your Prism system is now compatible with Tek's LA-CONNECT program which makes your logic analyzer compatible with many industry leading compilers and debuggers. LA-LINK is a software program that will extract symbolic information from an object module and convert it into a format that can be downloaded to the Prism.

There are two types of symbols available, Range Symbols and Pattern Symbols.

- **Range symbols** contain a starting and ending address and are generally assigned to an address group. You can download up to 1500 symbols per group (limited by available Prism system memory). In the state display, range symbols are shown as address plus an offset.
- **Pattern symbols** contain one value and are generally assigned to a control or data group. Up to 100 pattern symbols can be assigned to a group.
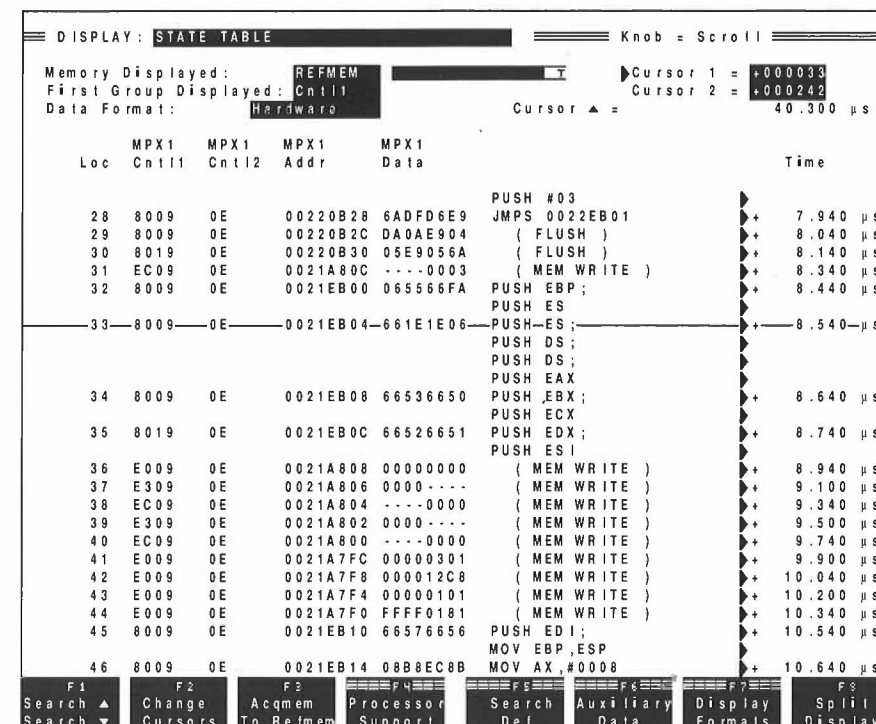
This is an example of a 80386 disassembly with four instructions per sample.

High level language symbols are now supported through Tek's LA-LINK symbol converter. This is an example of high level symbols displayed in a disassembly trace. Notice that these symbols are displayed on each line with an offset where appropriate.

```
═══ DISPLAY: STATE TABLE ═══════════════ ══ Knob = Scroll ══

Memory Displayed:        ACQMEM   T          ▶Cursor 1 =  +000003
First Group Displayed:  Cntl                  Cursor 2 =  +000000
Data Format:            Hardware      Cursor ▲ =         1.006340 ms

           MPX1   MPX1   MPX1
    Loc    Cntl   Addr   Data

·    3    7F70   0010E4  6BF4   BMI      0010DA               S
·    2    7EF0   C3FBE8  FFFF     ( READ )                    S
·    1    7EF0   C3FBEA  FFFF     ( READ )                    S
···TRIG···7F70····0010E6··5397···(··FLUSH··)·····················S···
     1    7F70   0010DA  6100   BSR.W    001374               S
     2    7F70   0010DC  0298     ( READ EXTENSION )          S
    ─3──  7F70──  001374─514F─ SUBQ.W──#8,A7──               ─S─
     4    7F70   001376  2F0B   MOVE.L   A3,-(A7)             S
     5    7ED0   C3FBE4  0000     ( WRITE )                   S
═══════════════════════════ Print All ═══════════════════════

State Table:      All Locations

Print Location:   -000028   to   +000255

UTILITY: Printer Setup ──── Destination: FLOPPY DISK

                            Directory:   SCREENS

                            File:        pr-submu



 F1                                                        ══F8══
 Start                                                     Cancel
Printing                                                   Printall
```

The Print All function displays a submenu which allows you to specify what you want to print and also the file name to print to. This eliminates the need to jump to alternate menus to set-up your print function.

Improved Download Capability

The industry standard Kermit RS-232 protocol has been added to Prism to enable you to reliably download/upload set-ups, reference memories, or symbol files from any host computer up to 38.4K baud. A status indicator will display your progress when uploading data to a host computer.

Improved Save/Restore Capability

The save/restore function has been improved to now save all user set-ups including trace names, display set-ups, and group setups. You can now save the state of your system at the end of the day and restore it to the same set-up the next morning.

Improved Print Operations

A new print feature called Print All provides the capability to print the state display in ASCII to a printer or to a file. A print file can be copied to the Prism's MS-DOS 3 1/2" floppy and moved to a PC for printing. You can print the entire state table, between cursors, or between sequence numbers.

Improved Trigger Locating

Any module in the Prism system can produce a trigger. You can now easily jump between triggers by pressing X or T for the system trigger and C or M for module triggers. Prism displays a message identifying which trigger is shown.

Ordering Information

Prism system software version 2.0 and all of the new versions of application software are provided free to all Prism 3001 and 3002 users! All registered users will automatically receive the new software upgrade and new user's manuals at no charge. Un-registered users can contact their local Tektronix sales engineer for a free upgrade.

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